

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

REC'D 10 MAY 2005

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P100166	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No.  PCT/SG2003/000171	International Filing Date (day/month/year)  17 July 2003	Priority Date (day/month/year)  17 July 2003
International Patent Classification (IPC) or national classification and IPC  Int. Cl. <sup>7</sup> A61B 005/00		
Applicant  CADI SCIENTIFIC PTE LTD et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheet(s).

3. This report contains indications relating to the following items:

I	<input checked="" type="checkbox"/> Basis of the report
II	<input type="checkbox"/> Priority
III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/> Lack of unity of invention
V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/> Certain documents cited
VII	<input type="checkbox"/> Certain defects in the international application
VIII	<input checked="" type="checkbox"/> Certain observations on the international application

Date of submission of the demand 3 February 2005	Date of completion of the report 21 April 2005
Name and mailing address of the IPEA/AU  AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <i>Amod Pradhan</i> Telephone No. (02) 6283 2510

**I. Basis of the report****1. With regard to the elements of the international application:\***

the international application as originally filed.

the description, pages 1 – 24, as originally filed,

pages , filed with the demand,

pages , received on with the letter of

the claims, pages , as originally filed,

pages , as amended (together with any statement) under Article 19,

pages , filed with the demand,

pages 27 – 30, received on 20 April 2005 with the letter of 20 April 2005

the drawings, pages 1/6 – 6/6, as originally filed,

pages , filed with the demand,

pages , received on with the letter of

the sequence listing part of the description:

pages , as originally filed

pages , filed with the demand

pages , received on with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

the language of publication of the international application (under Rule 48.3(b)).

the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4.  The amendments have resulted in the cancellation of:**

the description, pages

the claims, Nos. 1 – 9 [Pages 25 – 26]

the drawings, sheets/fig.

**5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SG2003/000171

- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

<b>NOVELTY (N)</b>	<b>CLAIMS 10 – 26</b>	<b>YES</b>
	Claims	NO
<b>INVENTIVE STEP (IS)</b>	<b>CLAIMS 10 – 26</b>	<b>YES</b>
	Claims	NO
<b>INDUSTRIAL APPLICABILITY (IA)</b>	<b>CLAIMS 10 – 26</b>	<b>YES</b>
	Claims	NO

**2. Citations and explanations (Rule 70.7)****NOVELTY (N); INVENTIVE STEP (IS) & INDUSTRIAL APPLICABILITY (IA)****Claims 10 – 26**

The applicant has filed amended claims in response to the 1<sup>st</sup> written opinion. These have been considered carefully and it is believed that the invention defined in the present amended claims is novel and possesses an inventive step over the prior art cited in the Search Report.

There are two independent claims in the present set of amended claims. Amended claim 10 is directed toward a system including a remote control unit wherein the remote control unit, apart from receiving and monitoring the physiological data of a patient, matches a date, time and location identifier of a first received record with that of at least one other record received from a different monitoring device. The feature of having a remote control unit adapted to match a date, time and location identifier of a first received record with that of at least one other record received from a different monitoring device is a distinguishing feature of the invention. This feature is not disclosed in any of the documents cited in the International Search Report. Consequently independent claim 10 (and its dependent claims 11 – 22 are novel and possess an inventive step).

Amended claim 23 is directed to a physiological parameter measuring device having a transducer, a transmitter and a processor. The measuring device includes a housing having a first and a second portion and a flexible medial portion connected between the said first and second portion, wherein the processor, transmitter and receiver are stored in the first portion while the transducer is supported in the second portion. The feature of the measuring device having a housing that has a first and a second portion and a flexible medial portion connected between the said first and second portion, wherein the processor, transmitter and receiver are stored in the first portion while the transducer is supported in the second portion is a distinguishing feature of the invention. This feature is not disclosed in any of the documents cited in the International Search Report. Consequently independent claim 23 (and its dependent claims 24 – 26 are novel and possess an inventive step).

**The invention defined in the present claims is suitable for industrial application.**

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10. A system for capturing and monitoring at least one physiological parameter and movement within an area of at least one person comprising:

a remote control unit; and

a plurality of access stations provided in a spatial arrangement within the area, thereby dividing the area into respective cells, wherein each access station has a respective station identifier, is connected to the control unit and is adapted to receive a physiological parameter reading and a respective device identifier from at least one physiological parameter measuring device attached to a first person, and to transmit the received physiological parameter reading and the device identifier along with its station identifier to the control unit;

wherein the physiological parameter reading, device identifier, station identifier and a time at which the physiological parameter reading is obtained by the device are stored in a first record at the control unit, and

wherein the control unit is adapted to match a date, time and location identifier of at least another record obtained from another respective device of at least one other person with those in the first record; and to identify the at least one other person to be in physical proximity of the first person if there is a match.

11. The system according to Claim 10, wherein the control unit is adapted to compare the physiological parameter reading with a first predetermined physiological parameter threshold value to determine if the first person is wearing the device properly.

12. The system according to Claim 11, wherein the control unit is further adapted to provide information corresponding to the device identifier and the location identifier associated with the physiological parameter reading for identifying and locating the first person if the first person is determined not to be wearing the device properly.

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13. The system according to Claims 10-12, wherein the control unit is adapted to compare the physiological parameter reading with a second predetermined threshold value to determine if the first person has a physical condition.
14. The system according to Claim 13, wherein the control unit is further adapted to provide information corresponding to the device identifier and the location identifier associated with the physiological parameter reading for identifying and locating the first person if the first person is determined to have the physical condition.
15. The system according to Claims 13-14, wherein the second predetermined physiological parameter threshold is predetermined individually for the first person.
16. The system according to Claims 11-15, wherein the physiological parameter reading is adjusted to include a physiological parameter correction factor that is individually determined for the first person prior to comparing the adjusted physiological parameter reading with either the first or second physiological parameter threshold value.
17. The system according to Claims 11-16, wherein the control unit is adapted to generate an alert message if the first person is determined either not to be wearing the device properly or to have the physical condition, the alert message including information corresponding to the station identifier and the device identifier.
18. The system according to Claim 17, wherein the alert message is sent to a predetermined recipient via a communication network to which the control unit is connectable.

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19. The system according to Claim 18, wherein the communication network is a public communication network.

20. The system according to Claims 10-19, wherein the control unit is adapted to instruct the device to transmit its device identifier and a physiological parameter reading measured therewith.

21. The system according to Claim 20, wherein the control unit is adapted to instruct the device by broadcasting a corresponding instruction via at least one selected access station, the instruction being receivable by all devices in a coverage area of the at least one selected access station.

22. The system according to Claims 10-21, further comprising at least one physiological parameter measuring device that is attachable to the first person for monitoring at least one physiological parameter of the first person, each device having a device identifier and being connected to the respective access station of the cell when it is within the cell.

23. A physiological parameter measuring device comprising:  
a transducer;  
a transmitter; and  
a processor connected to the transducer and the transmitter, the processor being adapted to control the transducer to at least intermittently measure a physiological parameter of a person and to control the transmitter to transmit a reading corresponding to the measured physiological parameter when it is determined that the reading has deviated from at least a predetermined threshold value, said physiological parameter measuring device further comprising a housing including:  
a first portion;  
a second portion; and  
a flexible medial portion connected between the first and the second portion,

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wherein the processor, transmitter and receiver are accommodated within the first housing portion and the transducer is supported on the second housing portion.

24. The device according to Claim 23, further comprising a receiver connected to the processor and wherein the reading is transmitted only if the processor receives an instruction to do so via the receiver.

25. The device according to Claims 23 and 24, wherein the device is a thermometer.

26. The device according to Claim 25, wherein the first and the second portion are bendable towards each other to define a U-shaped device for hooking on a piece of clothing so that the transducer is in contact with the abdomen of a person for measuring a temperature thereat.